WHAT IS CLAIMED IS:

1. An optical fiber assembly capable of deployment down an instrumentation tube located in a well bore, comprising:

a flexible tube having a lumen surrounded by a wall, the lumen having an inner diameter, the flexible tube also having an outer diameter smaller than an inner diameter of the instrumentation tube; and

an optical fiber having a core portion and a cladding portion disposed within the flexible tube, the optical fiber having an outer diameter smaller than an inner diameter of the lumen of the flexible tube.

2. The assembly of claim 1, wherein the flexible tube is hermetically sealed.

3. The assembly of claim 1, wherein the flexible tube is filled with a hydrogen scavenging material.

4. The assembly of claim 1, further comprising:

a coating applied to an outer surface of the flexible tube for preventing permeation of fluid or gas through the wall of the flexible tube.

5. The assembly of claim 4, wherein the coating is a material that reacts with hydrogen.

6. The assembly of claim 2, wherein the inner wall of flex tube is coated with hydrogen scavenging material.

7. An optical fiber suitable for deployment in a harsh environment, comprising:

an optical fiber having core portion and a cladding portion; and

a flexible barrier material disposed about an outer diameter of the optical fiber for protecting the optical fiber from the harsh environment.

8. The optical fiber of claim 7, wherein the flexible barrier is a thin tubing.

9. The optical fiber assembly of claim 7, wherein the flexible barrier encases the optical fiber, core portion and the cladding portion.

10. The optical fiber assembly of claim 7, wherein the flexible barrier is made of a material that prevents the transmission of water vapor or gas from the well in the fiber.

11. The optical fiber assembly of claim 10, wherein the flexible barrier is made of stainless steel.

12. The optical fiber assembly of claim 10, wherein the flexible barrier is made of nickel steel.

13. The optical fiber assembly of claim 7, wherein the flexible barrier member further includes a drag enhancer attached to the flexible barrier, wherein the drag enhancer provides resistance to the flow of the optical fiber assembly during deployment.

14. The optical fiber assembly of claim 7, wherein the flexible barrier is hermetically sealed.

15. The optical fiber assembly of claim 7, wherein the flexible barrier further includes a hydrogen scavenging material.

16. The optical fiber assembly of claim 8, wherein the flexible barrier includes coating applied to an outer surface of the flexible barrier for preventing permeation of fluid or gas through the wall of the flexible barrier.

17. The optical fiber assembly of claim 16, wherein the coating is a material that reacts with hydrogen to form a molecule that cannot permeate the wall of the flexible barrier tube.

18. A method of deploying an optical fiber down a well bore, comprising:

disposing an optical fiber having a core and a cladding surrounded by a flexible protective means into the lumen of a tube disposed within the well bore;

pumping a fluid under high pressure into the lumen of the tube disposed within the well bore, the pumped fluid acting on the optical fiber to drag the optical fiber down the well bore.

19. The method of claim 18, wherein the optical fiber includes a drag enhancer disposed at a distal end of the optical fiber.

20. The method of claim 18, wherein the flexible protective means is a hermetically sealed tube.

21. An optical fiber assembly for deployment down a capillary tube located in a well bore, comprising:

an optical fiber having a core portion and a cladding portion;

a flexible protective tube having an outside surface and an inside surface, the inside surface encasing the optical fiber, the flexible tube being hermetically sealed; and

a hydrogen scavenging material applied to the inside surface of the flexible tube for preventing permeation of fluid or gas through the flexible tube.

22. The optical fiber assembly of claim 21, wherein the hydrogen scavenging material is applied on the outside surface of the flexible tube.

23. The optical fiber assembly of claim 21, wherein the flexible tubing is formed by applying a coating to an outer surface of the optical fiber.

24. The optical fiber assembly of claim 23, wherein the coating material reacts with hydrogen.

25. The optical fiber assembly of claim 21, wherein the optical fiber has a distal end having a drag enhancer mounted thereto.